

Pediatric communicable diseases. Moskva. Medgiz, 1949. 29 p.

1. Communicable diseases.
2. Children - Diseases.

ROZANOV, SM

5986. ROZANOV, S. M. - Detskiye zaraznyye bolezni. Krasnoyarsk,
(Kryev, dom Sanirosveta) 1953, 29 s. 17sm. 5.000 ekz. B. Ts.-
(54-57802) 616.9-053.2

SO: Knizhnaya Letopis', Vol. 1, 1955

MAKINA, N.A., AIFAN, I.G., BORISOV, S.P. PROFESSOR, DIREKTOR; MOGANOV, D.M.,
professor, zaveduyushchiy; PROKHOROVICH, E.V., zasluzhennyy vrach respu-
bliki, glavnyy vrach.

Case of combined oral injury which presents diagnostic difficulties.

Pediatrica no.2:52-54 Mr-Apr '53.

(MLRA 6:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy peditaricheskiy institut (for
Borisov, Belaya, and Kifer). 2. Pervaya klinicheskaya detskaya bol'nitsa
(for Prokhorovich, Belaya, and Kifer). 3. Difteriynyy Otdel Gosudarstven-
nogo nauchno-issledovatel'skogo peditricheskogo instituta (for Borisov).
(Mouth--Wounds and injuries)

ROZANOV, S.N.

Studies on stenotic respiration in diphtheric croup in children and organization of therapeutic measures according to the Pavlovian theory. Zh. vysshei nerv. deiat. 3 no.2:184-191 Mar-Apr 1953. (GML 24:4)

1. Moscow.

FLEKSER, S.Ya., kandidat meditsinskikh nauk; PROKHOROVICH, Ye.V., zaslushennyy vrach RSFSR, glavnyy vrach; ROZANOV, S.N., professor, nauchnyy rukovoditel'.

Treatment of serum sickness with dimedrol. *Pediatrics* no.4:58-60 J1-Ag '53.
(MIRA 6:9)

1. Detskaya klinicheskaya bol'nitsa No.1 Moskovskogo nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR (for Prokhorovich and Flekser). 2. Moskovskiy nauchno-issledovatel'skiy pediatricheskiy institut Ministerstva zdravookhraneniya RSFSR (for Rozanov).
(Antihistamines) (Allergy)

~~File 7100~~
ROZANOV, S.N., prof.

Control of children's diseases in hospitals during the 40 years
of Soviet rule [with summary in English]. *Pediatrics* 36 no.1:
49-55 Ja '58. (MIRA 11:2)

1. Po materialam l-y Moskovskoy detskoy klinicheskoy bol'nitsy
(CHILDREN--DISEASES)

ROZANOV, S.M.

Atypical regeneration in *Lumbriculus variegatus*. Uch.zap. ^{Len.un.}
no.113:85-127 '49. (MIRA 10:3)
(REGENERATION: (BIOLOGY)) (OLIGOCHAETA)

PA 60-61

ROZANOV, S. M. (DECEASED)

USSR/Medicine - Worms

Dec 1947

Medicine - Cells - Transplantation

"Return of Polarity During Transplantations in the
Lumbriculus Variegatus," S. M. Rozanov, deceased, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 7

Experiments conducted at Embryological Laboratory,
Leningrad State University, showed that every piece
of flesh cut from body of worm had its own polarity,
which is maintained even during regeneration. A
relatively long period of time, depending on various
circumstances, necessary to destroy this polarity.
Submitted by Academician I. I. Shmal'gauzen, 24 Jun
1947.

FDB

60T61

ROZANOV, S. M.

35217. Atipicheskaya Regeneratsiya U Lumbriculus Variegatus. Uchen. Zapiski (Leningr. Gos. Un-T Im. Zhdanova), Seriya Biol. Nauk, VYP. 20, 1949, s. 85-127--

Bibliogr: 14 Nazv

SO: Letopis' Zhurhal'nykh Statey, Vol. 48, Moskva, 1949

ROZANOV, S.P.

[Collected summaries and list of works on general and communal hygiene during 1936-1946] Sbornik annotatsii i perechen' rabot po obshchei i kommunal'noi gigiene za 1936-1946 gg. Izd. AMN SSSR, 1949, 170 p. (MLRA 7:11D)

ROZANOV, S. P.

ROZANOV, S. P. A manual on the maintenance of electric motors in the textile industry. Moskva. Gizlegprom, 1943. 28 p. (50-42885)

TK4057.R65

1. KAZHDAN, Ye. M., Eng.: SHCHEGOL'KOV, Z.N., Eng.: ROZANOV, S.P., Prof.: GEYLER, L.B., Dr.
2. USSR (600)
4. Electric Power Distribution
7. "Electric power supply of industrial enterprises."
A. A. Fedorov, B. A. Knyazevskiy. Reviewed by Engs. Ye. M. Kazhdan,
Z. N. Shchegol'kov, Prof. S.P. Rozanov, Dr. L. B. Geyler. Elektrichestvo
No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

ROZANOV, S., Prof.

Gartung, S. V.

"Electric equipment of enterprises of light industry" S. A. Avayev, S.V. Gartung,
A. N. Shmelev. Reviewed by Prof. S. Rozanov. Leg. prom. 12 no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December ¹⁹⁵²~~1953~~, Uncl.

PRESS, S.A., professor [redaktor]; YUMATOV, A.A., inzhener (Kronshtadt); PALYAN, Kh.R., dotsent, kandidat tekhnicheskikh nauk; ROZANOV, S.P., professor (Moscow) [reviewers].

Discussing the book "General electrical engineering," edited by S.A.Press.
Reviewed by A.A.Umatov, Kh.R.Palian, S.P.Rozanov. Elektrichestvo no.11:81-84 N '53. (MIRA 6:10)

1. Armyanskiy sel'skokhozyaystvennyy institut (for Palyan).
(Electric engineering)

ROZANOV, S.

USSR/Miscellaneous

Card 1/1

Author : Rozanov, S.
Title : A simple method of replacing the radio dial cable
Periodical : Radio, 3, 41, Mar, 1954
Abstract : By taking a cable slightly longer than necessary and using a small load (about 200-250 gr) for stretching the cable, one can very easily replace the cable which has slid off the grooves.
Institution :
Submitted :

ROZANOV, S. P.

AID P - 1234

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 29/34

Author : Rozanov, S. P., Doc. of Tech. Sci., Prof.

Title : N. D. Tsyurupa, deceased. (Current Events)

Periodical : Elektrichestvo, 12, 83, D 1954

Abstract : A short biographical sketch and a list of his activities are presented. One photograph.

Institution : Faculty of Power Engineering of the Moscow Institute of Chemical Machine Building (MIKhM)

Submitted : No date

ZAYTSEV, Yu.A.; FILATOVA, L.I.; MILEYEV, V.S.; ROZANOV, S.B.; KHERASKOVA, T.N.
YAPASKURT, O.V.

Basic characteristics of the Cambrian structure of the Ulnan
(central Kazakhstan). Biul. MOIP Otd. geol. 40 no. 6:57-81
N-D '65 (MIRA 19:1)

ROZANOV, S.P., doktor tekhn.nauk, prof.

Concerning the form of the n^o f (4) curves for parallel excited
d.c. motors. Vest. elektroprom. 32 no.4:71-72 Ap '61. (MIRA 15:5)
(Electric motors, Direct current)

40969

S/081/62/000/016/040/043
B171/B186

15.9300

AUTHORS: Rozanov, S. P., Kononov, L. I.

TITLE: Investigation on electrophysical properties of rubbers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1962, 556, abstract
16P341 (Tr. Mosk. in-ta khim. mashinostr., v. 21, 1960,
107 - 124)

TEXT: The dielectric constant (ϵ), the angle of dielectric losses ($\tan \delta$) and the coefficient of dielectric losses in CWC-30 (SKS-30), CWC-30A (SKS-30A) and in chloroprene rubber (CP) were investigated with the help of an universal Q-meter in the frequency range of 500 kc/sec.-25 mc/sec., at 20 - 150°C. For SKS-30 and SKS-30A, the experimentally obtained value of ϵ was ~2.5 (calculated value 2.27) and changed only little with frequency (ω). $\tan \delta$ increases insignificantly with the increase of ω . Both ϵ and $\tan \delta$ remain constant when the temperature changes but they increase with the increase in plasticity of rubber. For CP, ϵ decreases and $\tan \delta$ increases with the increase of ω , ϵ increases and $\tan \delta$ decreases as the plasticization of rubber progresses. With the progress of sulfur-

Card 1/2

S/081/62/000/016/040/043
B171/B186

Investigation on electrophysical...

less vulcanization, ϵ and $\tan \delta$ increase and the maximum of $\tan \delta - \omega$ curve shifts in the direction of lower ω . With the increase of temperature of CP, the $\tan \delta$ increases sharply for $\omega < 1$ mc/sec. and decreases for ω between 2 and 25 Mc/sec. For CP, a minimum of $\tan \delta$ is observed at 0.5 - 1 Mc/sec. The $\tan \delta$ -temperature curve shows two maxima, at $< 20^\circ\text{C}$. and at $> 120^\circ\text{C}$, which shift in the direction of higher ω when the temperature increases. The electric disruptive strength of samples for $\omega = 10$ Mc/sec reached 2,600 - 3,500 v/mm for SKS and 1,500 v/mm for CP. With the increase of temperature, the disruptive strength changes very slightly for SKS, but shows a considerable decrease for CP. Following values of ω are recommended for high frequency heating: 10 Mc/sec for CP and 20 - 25 Mc/sec for SKS. [Abstracter's note: Complete translation.]

Card 2/2

AVAYEV, Sergey Aleksandrovich; ZINQMAN, Aleksandr Abramovich; KOZLOV, B.P.,
retsenzent; ROZANOV, S.P., retsenzent; BELOV, V.P., retsenzent;
SHTEYNGART, M.D., red.; SHVETSOV, S.V., tekhn. red.

[Fundamentals of the automation of technological processes in the
textile and other light industries] Osnovy avtomatizatsii tekhn-
logicheskikh protsessov v tekstil'noi i legkoi promyshlennosti.
Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1961. 378 p.

(MIRA 14:12)

(Automatic control) (Factories—Equipment and supplies)

ROZANOV, S Ya

23

Utilization of pyrite roasts. S. Ya. Rozanov. *Doklady Akad. Nauk SSSR*, No. 3, 1961, 50 (1961). In pulp mills in which SO_2 is produced by burning pyrites, the residues contain approx. Fe 50 and Cu 0.8%, Au 1.2 and Ag 15 g. per ton. The Cu can be recovered by leaching the residue with acid but the Au and Ag are lost. The residue can be chlorinated, e.g., with $NaCl$ in a Hertshof-type furnace, after which, by leaching, Cu, Au, and Ag can be recovered. The leached residue can be agglomerated for use in blast-furnace charges, or for the production of Roman type cement fragments, and residuals. M. Hoch.

AS 514 METALLURGICAL LITERATURE CLASSIFICATION

ROZANOV, S.P., doktor tekhn.nauk, prof.; ARTEM'YEV, B.I., kand.tekhn.nauk, dots.

New design of an electric drive for a semiflat assembly plant.

Khim.mash. no.6:7-8 N-D '60.

(MIR: 13:11)

(Machine-Tools--Electric driving)

А 5 2 5 4 - 4
KUZ'MINYKH, I.N., professor; SLOTVINSKIY, N.P.; ROZANOV, S.Ya.

Obtaining sulphite acid in a bubble column with inclined screen plates. Bum.prom. 29 no.10:5-7 0 '54. (MLRA 7:11)

1. Moskovskiy ordena Lenina khimiko-tekhnologicheskoy institut im. D.I.Mendeleeva (for Kuz'minykh i Slotvinskiy). 2. Moskovskiy filial TsNIIB.
(Sulfite liquor)

ROZANOV, V. (Moskovskaya oblast')

Two approaches, two results. Voen. znan. 40 no.8:22-23 Ag '64.
(MIRA 17:11)

ROZANOV, V., kand. tekhn. nauk; BRYKOV, A., inzh.

Exhaust brakes. Avt. transp. 37 no.12:31-33 D '59.

(MIRA 13:3)

(Motortrucks--Brakes)

ROZANOV, V.

Second year of the seven-year plan. Za bezop.dvizh. no.1:1-3
Ja '60. (MIRA 13:5)

1. Obshchestvennyy inspektor 4-go otdeleniya Otdela
regulirovaniya ulichnogo dvizheniya, Moskva.
(Traffic safety)

ROZANOV, V.

Traktor Skhaznati (Diesel-Driven Agricultural Tractor Skhtznati Produced by the Stalingrad, Kharkov and Altaisk Tractor Plants)

464 p. 1.50

SO: Four Continent Book List, April 1954

PAVLOV, Igor' Valentinovich; ROZANOV, V.A., retsenzent;
PETUSHKOVA, I.K., red.

[Draining transformers in a.c. traction networks] Otsa-
syvaiushchie transformatory v tiagovykh setiakh peremen-
nogo toka. Moskva, Transport, 1965. 203 p.

(MIRA 18:5)

L 50206-65 EWT(1)/EWA(h) Feb

ACCESSION NR: AP5008678

S/0144/65/000/002/0175/0179
621.317.737+621.326

10
9
B

AUTHOR: Rozanov, V. A. (Engineer)

~~Rozov, E. S.~~ (Candidate of technical sciences, Docent)

TITLE: Indication of the states of a decimal transistor scaler by readout lamps

SOURCE: IVUZ. Elektromekhanika, no. 2, 1965, 175-179

TOPIC TAGS: decimal scaler, transistor scaler, readout lamp

25

ABSTRACT: Four-trigger scale-of-10 transistor counters with various feedbacks are considered. It is pointed out that conventional feedback types cannot ensure the scale of 5 with a lamp readout. However, the addition of a forbidding switch into the feedback circuit permits the scale-of-5 operation. A model scaler is reported to have operated reliably with a supply-voltage variation of -10 -30 v at a rated voltage of -27 v; the input-pulse maximum frequency, 200 kc; permissible ambient temperature, -5+50C; input pulse, 4-18 v of 1-μsec duration. Orig. art. has: 2 figures and 3 tables.

Card 1/2

L 50206-65

ACCESSION NR: AP5008678

ASSOCIATION: Moskovskiy inzhenerno -fizicheskii institut (Moscow Engineering
and Physics Institute)

SUBMITTED: 10Apr62

ENCL: 00

SUB CODE: EC

NO REF SOV: 001

OTHER: 002

me
Card 2/2

L 11591-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(i)/EWA(h) JD

ACC NR: AP6000370

SOURCE CODE: UR/0286/65/000/021/0083/0083

AUTHORS: Bogdanov, Yu. B.; Veroman, V. Yu.; Rozanov, V. A.

ORG: none

TITLE: A method for electric arc fabrication of parts by a wire electrode-instrument on a photoduplicating machine. Class 49, No. 176172 18

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 83

TOPIC TAGS: electroerosion machining, metal electroforming

ABSTRACT: This Author Certificate presents a method for electric arc fabrication of parts by a wire electrode-instrument on a photoduplicating machine. To increase the accuracy of fabrication, the signal from the photodetector is shifted (with the help of a deflection system) by an amount compensating for the width of the cut.

SUB CODE: 13/ SUBM DATE: 25Jul62/

HCO
Card 1/1

UDC: 621.9.048.4

ROZANOV, V.F., inzhener, redaktor; UDOD, V.Ya., redaktor; TOKER, A.M.,
tekhnicheskii redaktor.

[Organization and technology of welding reinforced elements in the
building of the Kuybyshev Hydroelectric Power Station] Organizatsiia
i tekhnologiya izgotovleniia svarnykh armaturnykh konstruktsii na
stroitel'stve Kuibyshevskoi GES. Moskva, Gos.izd-vo lit-ry po stroit.
i arkhitekture, 1955.70 p. (MLRA 9:5)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii
i mekhanizatsii stroitel'stva.
(Welding) (Kuybyshev Hydroelectric Power Station)

KAGANOV, Neta L'vovich, dotsent, kandidat tekhnicheskikh nauk; ROZANOV,
V.F., inzhener, redaktor; STARICHKOV, V.P., inzhener redaktor;
TOKER, A.M., tekhnicheskii redaktor

[Electric butt welding of the framework for reinforced concrete]
Kontaktnaia stykovaia elektrosvarka armatury zhelezobetona. Moskva,
Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1955. 90 p.
(Electric welding) (MIRA 8:3)
(Reinforced concrete)

ROZANOV, V. G.

Air Brakes

Analysis of the principal types of pneumatic brakes for autotrailers. V. G. Rozanov.
(Trudy) NAMI, No. 54, 1943.

9. Monthly List of Russian Accessions, Library of Congress, September 1953, Uncl.

2

ROZHMV, Vladimir Grigor'evich.

Tractor DT-54. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1951. (Uchebniki i uchebnye posobiia dlia podgotovke sel'skokho-ziaistvennykh kadrov massovoi kvalivikatsii) (Mic 55-3559)

Collation of the original, as determined from the film: 267 p.

Microfilm Slavic 325 TL

ROZANOV, V.G.; SHIDAREV, I.M., redaktor; ITSKOV, A.I.; ORLOVA, V.V.,
tekhnicheskii redaktor.

[The DT-54 tractor] Traktor DT-54. Moskva, Gos. izd-vo selkhoz.
lit-ry, 1952. 267 p. (Uchebniki i uchebnye posobiia dlia pod-
gotovki sel'skokhoziaistvennykh kadrov massovoi kvalifikatsii)
[Microfilm] (MLRA 7:12)
(Tractors)

ROZANOV, V. G.

Traktor ASKhTZ-NATI. Izd-6. perer. Moskva, Sel'khozgiz, 1952.
399 P. Illus., Diagr.

N/5
743.281
.R8
1952

ROZANOV, V. G.

Tractors

On defects of a book ("Tractor DT-54" V. G. Rozanov.) MTS 12 No. 91952

Monthly List of Russian Accessions, Library of Congress, December 1952, UNCLASSIFIED.

ANOKHIN, V.I.; BOLTINSKIY, redaktor; KARNAUKHOV, V.N.; ROZANOV, V.G.;
ITSKOV, A. [deceased], redaktor; KRYUKOV, V.L., redaktor; FE
DOVA, A.P., tekhnicheskij redaktor.

[Tractors] Traktory. Pod red. V.N.Boltinskogo. Moskva, Gos.
izd-vo selkhoz. lit-ry, 1954. 358 p. [Microfilm] (MLRA 7:11)
(Tractors)

ROZANDY, V.G.

Traktor ASKhTZ-NATI (ASKhTZ-NATI tractor). Izd. 8-e. Moskva, Sel'khozgiz, 1954. 400 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 5, August 1954

KULIKOV, N.K., kandidat tekhnicheskikh nauk; OSIPIYAN, A.V., kandidat tekhnicheskikh nauk, redaktor; KOZLOVSKIY, I.S., kandidat tekhnicheskikh nauk, redaktor; ERILING, N.R., doktor tekhnicheskikh nauk, professor, redaktor; KALISH, G.G., doktor tekhnicheskikh nauk, professor, redaktor; PEVZNER, Ya.M., doktor tekhnicheskikh nauk, professor, redaktor; KHRUSHCHEV, M.M., doktor tekhnicheskikh nauk, professor redaktor; RAMAYYA, K.S., doktor tekhnicheskikh nauk, redaktor; LIPGART, A.A., redaktor; PRYADILOV, V.I., kandidat tekhnicheskikh nauk, redaktor; ROZANOV, V.G., kandidat tekhnicheskikh nauk, redaktor; CHISTOZVONOV, S.B., inzhener, redaktor; ZIL'BERBERG, Ya.G., inzhener, redaktor; UVAROVA, A.F., tekhnicheskiiy redaktor.

Weged freewheeling clutches. Trudy NAMI no.75:3-67 '54.
(MIRA 8:7)

1. Konstruktor Nauchno-issledovatel'skogo avtomotornogo instituta (for Lipgart)

(Clutches (Machinery))

LEVENSTERN, O.L., kandidat tekhnicheskikh nauk; KRESTOVNIKOV, G.A., inzhener; OSIPIYAN, A.V., kandidat tekhnicheskikh nauk, redaktor; KOZLOVSKIY, I.S., kandidat tekhnicheskikh nauk, redaktor; ZIL'BERBERG, Ya.G., inzhener, redaktor; BRILING, N.R., professor, doktor tekhnicheskikh nauk, redaktor; KALISH, G.G., doktor tekhnicheskikh nauk, professor, redaktor; RAMAYYA, K.S., doktor tekhnicheskikh nauk, redaktor; LIFGART, A.A., professor, redaktor; PRYADILOV, V.I., kandidat tekhnicheskikh nauk, redaktor; ROZANOV, V.G., kandidat tekhnicheskikh nauk, redaktor; CHISTOZVONOV, S.B., inzhener, redaktor; SHTEYNGART, M.D., redaktor; UVAROVA, A.F., tekhnicheskiiy redaktor.

[Heating of brake linings in passenger cars] Nagrev termoznykh nakladok legkovykh avtomobilei. Moskva, Gos.nauchno-tekh.izd-vo mashinostreit. lit-ry, 1955. 35 p. (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i avtomotornyi institut. Trudy, no.78). (MIRA 9:7)

1.Direktor Nauchno-issledovatel'skogo avtomotornogo instituta (for Osipyan).2.Zamestitel' direktora Nauchno-issledovatel'skogo avtomotornogo instituta (for Kozlovskiy).3.Chlen-korrespondent AN SSSR (for Briling). (Automobiles--Brakes)

KULIKOV, N.K., doktor tekhnicheskikh nauk; OSIPYAN, A.V., kandidat tekhnicheskikh nauk, redaktor; KOZLOVSKIY, I.S., kandidat tekhnicheskikh nauk, redaktor; ZIL'BERBERG, Ya.G., inzhener, redaktor; BRILING, N.R., doktor tekhnicheskikh nauk, professor, redaktor; KALISH, G.G., doktor tekhnicheskikh nauk, professor, redaktor; PEVZNER, Ya.M., doktor tekhnicheskikh nauk, professor, redaktor; KRUSHCHEV, M.M., doktor tekhnicheskikh nauk, professor, redaktor; RAMAYYA, K.S., doktor tekhnicheskikh nauk, professor, redaktor; LIPGART, A.A., professor, redaktor; PRYADILOV, V.I., kandidat tekhnicheskikh nauk, redaktor; ROZANOV, V.G., kandidat tekhnicheskikh nauk, redaktor; CHISTOZVONOV, S.B., inzhener, redaktor; YEGORKINA, L.I., redaktor; UVAROVA, A.F., tekhnicheskii redaktor; BROKSH, V.V., inzhener.

[Performance of automobile wheels] Rabota avtomobil'nogo kolesa. (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i avtomotornyi institut. [Trudy] no.77) 1955 36 p. (MLRA 9:4)

1.Chlen-korrespondent AN SSSR (for Briling).
(Automobiles--Wheels)

RUDNITSKIY, N.M., kandidat tekhnicheskikh nauk; OSIPYAN, A.V., kandidat tekhnicheskikh nauk, redaktor; KOZLOVSKIY, I.S., kandidat tekhnicheskikh nauk, redaktor; ZIL'BERBERG, Ya.G., inzhener, redaktor; BRILING, N.R., doktor tekhnicheskikh nauk, professor, redaktor; KALISH, G.G., doktor tekhnicheskikh nauk, professor, redaktor; PEVZNER, Ya.M., doktor tekhnicheskikh nauk, professor, redaktor; KRUSHCHEV, M.M., doktor tekhnicheskikh nauk, professor, redaktor; RAMAYYA, K.S., doktor tekhnicheskikh nauk, redaktor; LIPGART, A.A., professor, redaktor; PRIADILOV, V.I., kandidat tekhnicheskikh nauk, redaktor; ROZANOV, V.G., kandidat tekhnicheskikh nauk, redaktor; CHISTOZVONOV, S.B., inzhener; BROKSH, V.V., inzhener, redaktor; BAUMAN, I.M., redaktor; UVAROVA, A.F., tekhnicheskiiy redaktor.

[Endurance of materials for automobile engine sliding friction bearings] Vynoslivost' materialov dlia podshipnikov skol'zhenia avtomobil'nykh dvigatelei. (Moscow, Gosudarstvennyi nauchno-issledovatel'skii i avtomobil'nyi institut. [Trudy], no.76) 1955 54 p. (MIRA 9:4)

1. Direktor Nauchno-issledovatel'skogo avtomotornogo instituta (for Osipyan). 2. Chlen-korrespondent AN SSSR (for Briling).
(Bearings (Machinery)) (Automobiles--Engines)

YEGOROV, L.A.; IVANOV, Yu.B.; ROZANOV, V.G.; BUKHARIN, N.A., doktor
tekhnicheskikh nauk, professor, ~~Petsenzent~~; SHUTYY, L.R.,
kandidat tekhnicheskikh nauk; SOKOLOVA, T.F., tekhnicheskiy
redaktor.

[Methods of testing automobiles and their mechanisms] Metody
ispytaniya avtomobilya i ego mekhanizmov. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroyitel'noi lit-ry no.6[Brakes] Tormoznye
mekhanizmy. 1955. 165 p. (MLBA 8:11)

1. Russia (1923- U.S.S.R.) Ministerstvo avtomobil'nogo traktornogo
i sel'skokhozyaystvennogo mashinostroyeniya.
(Brakes--Testing)

YEGOROV, L.A., kandidat tekhnicheskikh nauk; ROZANOV, V.G., kandidat tekhnicheskikh nauk.

Method for general testing of the pneumatic drive of automobile brakes. Avt.i trakt.prom.no.12:10-14 D '56. (MLRA 10:2)

1. Moskovskiy avtozavod imeni Likhacheva. 2. Nauchno-issledovatel'skiy avtomobil'nyy institut.
(Autcmobiles--Brakes)

ROZANOV, V.G., kandidat tekhnicheskikh nauk; YEGOROV, L.A., kandidat
~~tekhnicheskikh nauk.~~

Improving and standardizing air brakes. Avt.i trakt.prom.
no.3:15-21 Mr '57. (MLRA 10:5)

1. Nauchno-issledovatel'skiy avtomotornyy institut i Moskovskiy
avtozavod imeni Likhacheva.
(Automobiles--Brakes)

ACC NR: AT6012890

SOURCE CODE: UR/0000/65/000/000/0112/0118

AUTHOR: Bulat, A. A.; Denisov, V. G.; Kuz'minov, A. P.; Onishchenko, V. F.; Rozanov, Yu. A.; Sil'vestrov, M. M. 39
B4

ORG: None

TITLE: An integral method for evaluating the effective training level of operators in control systems

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 112-118

TOPIC TAGS: man machine communication, electrophysiology, specialized training, training procedure, human engineering

ABSTRACT: The authors consider the dynamics of the process by which an operator acquires skill in control and the degree to which training is effective in an attempt to solve the problem of adaptation of an operator to the system which he controls. Factors affecting the speed at which working habits are formed are discussed. It is pointed out that the purely psychological method for evaluating the level of training effectiveness is not sufficiently complete and objective. Electrophysiological methods are used for a fuller evaluation of the habit formation process using electroencephalograms, electromyograms, electrocardiograms, cutaneogalvanic reactions, and pneumograms to study changes in the neuropsychic makeup of the operator. The results of tests show a reduction in the bioelectric activity of the muscles and high-frequency

Card 1/2

L 29436-66

ACC NR: AT6012890

rhythms of the cerebral cortex as well as in the amplitude of electrocutaneous potentials and the number of cardiac contractions to a frequency close to the normal pulse rate. A diagram is given showing the equipment for comprehensive registration of the electrophysiological indices of the operator during training. An analysis of the dynamic process of coordination between the various systems in the organism of the operator during training is used for determining the instant when the operator reaches optimum capacity for dealing with control problems. It is found that the circulation of a definite quantity of information is required for maintaining a given control process. This quantity of information is evaluated for a closed control system with a single human link. An integral expression is given for evaluating the level of effectiveness of operator training in man-machine systems. A curve is given showing the degree of training effectiveness for an operator in a complex control system as a function of the number of training exercises. Seven parameters were used for evaluating training effectiveness. It was found that working habits were formed after 12-13 training periods. Orig. art. has: 2 figures and 5 formulas. [08]

SUB CODE: 05 / SUBM DATE: 02Aug65 / ORIG REF: 008 / ATD PRESS: 5010

Card 2/2 FV

YEGOROV, I.A., kand. tekhn. nauk, prof., V. I. Vern. tekhn. nauk

Analyzing technical characteristics of single-stage piston
compressors for motor vehicles. Avt. prom. 80 no. 1:34-40
Pr 84. (MIRA 17:6)

I. Gosudarstvennyy soyuznyy nauch. Tsentr. Krasnoye Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.

LYUBUSHKIN, V.V.; ROZANOV, V.G., kand.tekhn.nauk

Improving a braking system with pneumatic driving. Avt.prom. 29
no.9:26-28 S '63. (MIRA 16:9)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo
Znameni nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy
institut.

*(Motor vehicles—Brakes)

ROZANOV, V.G., kand.tekhn.nauk

Improving braking properties of motor vehicles. Avt.prom. 29
no.10:20-22 0 '63. (MIRA 16:10)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.

BRYKOV, A.S.; ORZHEVSKIY, I.S.; ROZANOV, V.G., kand.tekhn.nauk

Investigating the performance of the antiblocking device in
the pneumatic brake drive of a motor vehicle. Avt.prom. 28
no.11:8-11 N '62. (MIRA 16:1)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Motor vehicles—Brakes)

ROZANOV, V. G., kand. tekhn. nauk; LYUBUSHKIN, V. V.

Selecting optimum characteristics of a pneumatic drive for
automobile-train brakes. Avt. prom. 28 no.6:25-28 Je '62.
(MIRA 16:4)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotorny institut.

(Automobile trains—Brakes)

BRYKOV, A.S.; ROZANOV, V.G., kand. tekhn. nauk

Efficient utilization of the adherence weight in braking.
Avt. prom. 28 no.7:19-22 J1 '62. (MIRA 16:6)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy
institut.

(Motor vehicles--Brakes)

ROZANOV, V.G., kand.tekhn.nauk; BRYKOV, A.S.

Inertia brakes with an electromagnetic drive for trailers. Avt.
prom. no.6:16-22 Je '60. (MIRA 13:8)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Truck trailers--Brakes)

ANOKHIN, Vasilii Ivanovich; BOLTINSKIY, V.N., akademik; KARNAUKHOV, I.F.; ROZANOV, V.G.; BANNIKOV, S.A., red.; GOR'KOVA, Z.D., tekhn.red.

[Tractors] Traktory. Pod red. V.N.Boltinskogo. Izd.3., dop. i perer. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 511 p. (MIRA 13:9)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I. Lenina (for Boltinskiy).
(Tractors)

ROZANOV, V., kand. tekhn. nauk; BRYKOV, A., inzh.

Brakes. Za rul. 17 no.9:20-21 s '59.

(MIRA 13:1)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Automobiles--Brakes)

RUDNITSKIY, N.M., kand. tekhn. nauk; VEDENYAPIN, G.A., otv.red.; KOZLOVSKIY, I.S.,
kand.tekhn.nauk, red.; ZIL'BERBERG, Ya.G., inzh. zamestitel' otv.red.
BRILING, N.R., doktor tekhn.nauk, prof., red.; KALISH, G.G., doktor
tekhn.nauk, prof., red.; PEVZNER, YA.M., doktor tekhn.nauk, prof.,
red.; KHRUSHCHEV, M.M.; doktor tekhn.nauk, prof., red. RAMAYVA, K.S.,
doktor tekhn.nauk, red.; LIPGART, A.A., prof., red.; PRYADILOV, V.I.,
kand. tekhn. nauk, red.; ROZANOV, V.G., kand. tekhn nauk, red.;
CHISTOZVONOV, S.B., inzh., red.; AVAKIMOV, G.G., red.izd-va;
SHIKIN, S.T., tekhn. red.

[Investigating the durability of crankshafts in IAAZ diesel engines]
Issledovanie vynoslivosti kolenchatykh valov dizelei IAAZ Moskva,
Gos. nauchn.-tekhn. izd-vo mashinostroitel'noi lit-ry, 1957. 30 p.
(Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i
avtomotornyi institut [Trudy], no.8a]. (MIRA 11:4)

1. Direktor Gosudarstvennogo soyuznogo ordena Trudovogo Krasnogo
Znameni nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo
instituta (for Vedenyapin). 2. Zamestitel' direktora po nauchnoy
chasti Gosudarstvennogo soyuznogo ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo instituta
(for Kozlovskiy). 3. Chlen-korrespondent AN SSSR (for Briling).
(Crankshafts and crankshafts) (Diesel engine)

YEGOROV, Leonid Andrianovich, kand.tekhn.nauk; ROZANOV, Vladimir
Grigor'yevich, kand.tekhn.nauk; VISHNYAKOV, N.N., kand.tekhn.
nauk, retsenzent; LUBENETS, V.D., kand.tekhn.nauk, red.;
LEZHNEVA, Ye.I., red.izd-va; EL'KIND, V.D., tekhn.red.

[Piston-type air compressors for motor vehicles; theory, design,
construction, and testing] Avtomobil'nye porshnevye kompressory;
teoriia, konstruktsiia, raschet i ispytaniia. Moskva, Gos.
nauchno-tekhn.izd.mashinostroit.lit-ry, 1958. 235 p. (MIRA 12:2)
(Automobiles--Brakes) (Air compressors)

SOV/113-58-2-2/15

AUTHOR: Rozanov, V.G., Candidate of Technical Sciences

TITLE: Selection of Types of Braking Systems for Automobile Trailers
(Vybor tipa tormoznykh sistem dlya avtomobil'nykh pritsepov)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 2, pp 1 - 6 (USSR)

ABSTRACT: Braking systems with too high efficiency cause blocking of the wheels during operation. It is necessary to keep a truck and its trailers at an equal distance from one another. In case of emergency the trailers must be braked automatically. If the trailer is not connected with the truck, braking by hand should be possible. Inertia brakes with a mechanical drive need frequent and precise adjustment. Figure 1 shows a hydraulic drive of an inertia brake with lever transmission to the principal cylinder. These brakes may be used on automobiles of all types. Inertia brakes with hydraulic drive may be transformed to pneumatic brakes for use on trucks with pneumatic equipment (Figure 3). An inertia brake with electromagnetic drive is shown in Figure 4. It is used in small and medium-sized trailers. Current is supplied to the electromagnets by hand- or foot-operated controllers. The foot-operated controller (Figure 5) is a multi-stage rheostat. The diagram of a pneumatic drive

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SOV/113-58-2-2/15

Selection of Types of Braking Systems for Automobile Trailers

for a truck with trailers with direct action on the brake levers is given in Figure 7. The diagram for the air distribution device in the trailer is shown in Figure 8. Trailers with a carrying capacity of up to 2 tons should be equipped with hydraulic brake drives. Trailers of up to 7 - 10 tons should be equipped with pneumatic brakes. For a carrying capacity of 12 tons and more electromagnetic drives are recommended. In trailers with many wheels and several braking mechanisms a pneumatic-hydraulic drive should be used for the brakes. There are 9 diagrams.

ASSOCIATION: NAMI

1. Brakes---Design
2. Brakes---Operation
3. Trailers---Equipment

Card 2/2

SOV/113-58-4-2/21

AUTHORS: Rozanov, V.G., Candidate of Technical Sciences, Brykov, A.S.

TITLE: Retarder-Brakes in Buses, Heavy-Duty Trucks and Trailers
(Tormoza-zamedliteli na avtobusakh, tyazhelykh gruzovykh avtomobilyakh i pritsepakh)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 4, pp 5-8 (USSR)

ABSTRACT: Although the brake systems with friction-type mechanisms used in present automobiles are effective and sufficiently reliable, their effectivity decreases with a temperature increase due to slow heat elimination in frequent and extended application of the brakes. One of the possibilities of increasing safety in braking operations is based on the application of additional retarder brakes functioning independently from the ordinary service brakes. Taking into consideration foreign designs and experience, the article describes retarder-brakes operating on mechanical, (Figure 1), pneumatic (Figures 1 to 4), hydraulic (Figures 5 and 6), and electrodynamic (Figures 7 and 8) principles. There are 8 diagrams.

ASSOCIATION: NAMI

1. Hydraulic brakes--Effectiveness 2. Passenger vehicles--Equipment
3. Cargo vehicles--Equipment 4. Trailers--Equipment

Card 1/1

TRAKTOVENKO, I.A., kand. tekhn. nauk; VEDENYAPIN, G.A., otv. red.; KOZLOVSKIY, I.S., kand. tekhn. nauk. red.; ZIL'BERBERG, Ya.G. inzh. zamestitel' otv. red.; BRILING, N.B., doktor tekhn. nauk, prof., red.; KALISH, G.G., doktor tekhn. nauk, prof., red.; PEVZNER, Ya.M., doktor tekhn. nauk, prof., red.; KHRUSHCHEV, M.M., doktor tekhn. nauk, prof., red.; RAMAYYA, K.S., doktor tekhn. nauk, red.; LIPGART, A.A., prof., red.; PRYADILOV, V.I., kand. tekhn. nauk, red.; ~~BOZANOV, V.G.~~, kand. tekhn. nauk, red.; CHISTOZVONOV, S.B., inzh., red.; SHIKIN, S.T., tekhn. red.

[Investigating the effect of the cetane number of diesel fuels on the performance of engines] Issledovanie vliianiia tsetanovogo chisla topliva na rabotu dyigatel'ia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1957. 30 p. (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i avtomotorny institut. [Trudy], no.83). (MIRA 10:12)

1. Direktor Gosudarstvennogo soyuznogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo instituta (for Vedenyapin). 2. Zamestitel' direktora po nauchnoy rabote Gosudarstvennogo soyuznogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo instituta (for Kozlovskiy). 3. Chlen-korrespondent AN SSSR (for Briling).
(Diesel fuel) (Diesel engine)

ROZANOV, V.G.; SHIDAREV, I.M., red.; ORLOVA, V.V., tekhn. red.

[DT-54 tractor] Traktor DT-54. Moskva, Gos. izd-vo sel'khoz. lit-ry,
1951. 267 p. (MIRA 11:8)

(Tractors)

ROZANOV, V.G., kand.tekhn.nauk; BRYKOV, A.S.

Deceleration brakes for motorbuses, heavy motortrucks and trailers.
Avt. prom. no.4:5-8 Ap '58. (MIRA 11:6)

1.Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni nauchno-
issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Motortrucks--Brakes) (Motorbuses--Brakes) (Trucktrailers--Brakes)

ROZANOV, V.G., kand. tekhn. nauk.

Selecting brake-systems for truck trailers. Avt.prom. no.2:1-6
F '58. (MIRA 11:2)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krashogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Truck trailers--Brakes)

ROZANOV, V.G.

CHAPKEVICH, V.A., kandidat tekhnicheskikh nauk; OSIPIYAN, A.V., kandidat tekhnicheskikh nauk, redaktor; KOZLOVSKIY I.S., kandidat tekhnicheskikh nauk, redaktor; ZIL'BERBERG, Ya.G., inzhener, redaktor; BRILING, N.B., professor, doktor tekhnicheskikh nauk, redaktor; KALISH, G.G., professor, doktor tekhnicheskikh nauk, redaktor; PEVZNER, Ya.M., professor, doktor tekhnicheskikh nauk, redaktor; KHRUSHCHOV, M.M., doktor tekhnicheskikh nauk, professor, redaktor; RAMAYYA, K.S., doktor tekhnicheskikh nauk, redaktor; LIPGART, A.A., professor, redaktor; PRIYADILOV, V.I., kandidat tekhnicheskikh nauk, redaktor; ROZANOV, V.G., kandidat tekhnicheskikh nauk, redaktor; CHISTOZVONOV, S.B., inzhener, redaktor; UVAROVA, A.F., tekhnicheskii redaktor.

[Investigation of the operation of the IaAZ engine] Issledovanie rabochego protsessa dvigatelya IaAZ. Moskva, Gos.nauchno-tekhn. izd-vo mashino-stroitel'stva, 1956. 41 p. (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i avtomotornyi institut. [Trudy], no.79) (MIRA 10:3)

1. Direktor Nauchno-issledovatel'skogo avtomobil'nogo insituta (for Osipyan)
2. Zamestitel direktora Nauchno-issledovatel'skogo avtomobil'nogo instituta po nauchnoy rabote (for Kozlovskiy)
3. Chlen-korrespondent AN SSSR (for Briling).
(Automobiles--Engines)

KOZLOVSKIY, I.S.
 SHKOL'NIKOV, E.M., kand.tekhn.nauk; LEVITAN, M.M., inzh.; OSIPYAN, A.V.,
 kand.tekhn.nauk, red.; KOZLOVSKIY, I.S., kand.tekhn.nauk, zamestitel'
 otvetstvennogo red.; BRILING, N.R., doktor tekhn.nauk, prof., red.;
 KALISH, G.G., doktor tekhn.nauk, prof.; LIPGART, A.A., prof., red.;
 PEVZNER, Ya.M., doktor tekhn.nauk, prof., red.; PRYADIL'OV, V.I., kand.
 tekhn.nauk, red.; ROZANOV, V.G., kand.tekhn.nauk, red.; KRUSHCHEV, M.M.,
 doktor tekhn.nauk, prof., red.; CHISTOZVONOV, S.B., inzh., red.;
 ZIL'BERBERG, Ya.G., inzh., red.; YEGORKINA, L.I., red.izd-va;
 UVAROVA, A.F., tekhn.red.

[Using chromium-silicon alloys in manufacturing automobile engine
 sleeves] Khromokremnistyi splav dlia gil'z avtomobil'nykh dvigatelei.
 Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 78 p.
 (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i
 avtomotornyi institut. Trudy no.81)

1. Direktor Gosudarstvennogo soyuznogo ordena Trudovogo Krasnogo
 Znameni nauchno-issledovatel'skogo avtomobil'nogo i avtomotornogo
 instituta (for Osipyan). 2. Zamestitel' direktora Gosudarstvennogo
 soyuznogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo
 avtomobil'nogo i avtomotornogo instituta (for Kozlovskiy). 3. Chlen-
 korrespondent AN SSSR (for Briling).
 (Chromium-silicon alloys) (Automobiles--Engines--Cylinders)

ROZANOV, VLADIMIR GRIGOR'YEVICH

ANOKHIN, Vasilii Ivanovich; BOLTINSKIY, Vasilii Nikolayevich, akademik;
KARNAUKHOV, Ivan Fedorovich; ROZANOV, Vladimir Grigor'yevich;
SMIRNOV, A.G., redaktor; PEVZNER, V.I., tekhnicheskii redaktor;
GOR'KOVA, Z.D., tekhnicheskii redaktor

[Tractors] Traktory. Pod red. V.N.Boltinskogo. Izd. 2-oe, dop. i
perer. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1957. 420 p.
(MIRA 10:11)

1. Moskovskiy institut mekhanizatsii i elektrifikatsii sel'skogo
khozyaystva (for Anokhin, Boltinskiy, Karnaukhov). 2. Gosudar-
stvennyy soyuznyy nauchno-issledovatel'skiy avtomobil'nyy i avto-
motornyy institut (for Rozanov)
(Tractors)

BREZHNEVA, N.Ye.; OZIRANER, S.N.; ROZANOVA, V.N.

Adsorption of cations on iron hydroxyacetate precipitates. Zhur.
fiz. khim. 34 no.8:1866-1871 Ag '60. (MIRA 13:9)
(Iron acetate) (Adsorption)

27

CH

Recovering protein from press cake. V. N. Rozanov
and N. V. Smirnova. *Schriften seral. biochem. Forsch.*
angew. Nahr.-Genussmittelind. (U. S. S. R.) 1, 301-8
(1952). — The NH_4OH method of extg. protein from oil
seed press cake is not economical because of the difficulty and
expense of NH_3 recovery. Use of KOH or NaOH causes
no greater protein degradation and is more efficient.
Details vary according to conditions, but in general
good results are obtained by extn. with 0.5-1.5% KOH
(or NaOH) and pptn. with dil. HCl . J. P. S.

ASAC 51.4 METALLURGICAL LITERATURE CLASSIFICATION

Recovering protein from press cake. V. N. Anzhanov and N. V. Smirnova. *Schriften zentral. biochem. Forsch.-angewand. Nahr.-Genussmittelind.* (U. S. S. R.) 1, 301-8 (1932).—The NH_4OH method of extg. protein from oil seed press cake is not economical because of the difficulty and expense of NH_3 recovery. Use of KOH or NaOH causes no greater protein degradation and is more efficient. Details vary according to conditions, but in general good results are obtained by extn. with 0.5-1.5% KOH (or NaOH) and pptn. with dil. HCl . J. P. S.

ARTAMONOV, V.D.; BRYLOV, V.G.; ISACHENKO, V.M.; MISHAKIN, V.P.;
ROZANOV, V.N.; KHAROV, I.F.; SEVAST'YANOV, N.K.;
YAKOVLEV, B.A.; VIL'CHINSKIY, I.K., red.

[Civil defense in rural areas; a training manual] Grazhdan-
skaia oborona v sel'skikh raionakh; uchebnoe posobie. Mo-
skva, Voenizdat, 1965. 159 p. (MIRA 18:6)

FRIDENSTEIN, I.L.; KAMLYUK, L.M.; ROZANOV, V.N.

Skeleton isomerization of n-pentenes on natural aluminosilicates.
Neftekhimiya 4 no.5:680-686 S-O '64. (MIRA 18:1)

1. Gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut
promyshlennosti sinteticheskogo kauchuka.

КЕЧІЛІКІНІҢ АТЫ:

Transactions of the Sixth Conference (Cont.)

SOV/6371

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Transactions of the 6th Conf. on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vil'nyus, 5-10 Sep '60. Vil'nyus Gospolitizdat Lit SSR, 1962. 493 p. 2500 copies printed

LEVIN, B.R.; ROZANOV, V.S.

Calculation of the number of channels of multichannel systems
with interspace time-pulse modulation. Elektrosviaz' 15
no.6:10-14 Je '61. (MIRA 14:6)

(Telecommunication)

(Modulation (Electronics))

9.8300
9.3275

26428
S/106/60/000/005/002/009
A055/A133

AUTHORS: Levin, G. A.; Levin, B. R.; Ayzenberg, V. I.; Rozanov, V. S.

TITLE: Increasing the efficiency of multichannel systems with time division of channels

PERIODICAL: Elektrosvyaz', no. 5, 1960, 10-16

TEXT: Statistical measurements in multichannel systems with time division of channels revealed that a telephone channel is really active only for about 15 minutes per hour at maximum load. The probability law proves that during 99% of the total time the number of active channels does not exceed a value $n < N$ (N being the total number of channels). The present article shows how it is possible to increase the efficiency of these multichannel systems by a proper use of inactive intervals and channels. It also shows that this efficiency can be increased by a more complete utilization of the statistics of the instantaneous values of the transmitted signals: by varying the duration of the channel intervals in accordance with the instantaneous value of the transmitted signal, it is possible to increase the number of channels. To enhance this efficiency, it is necessary to abandon the channel interval of constant duration. Inasmuch as

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Increasing the efficiency of multichannel ...

the time interval between pulses of the preceding and following channels is used as carrier of useful information, the method described by the authors is a variety of pulse-time modulation and can therefore be named "interval pulse-time modulation" or IPTM. There are many possible variants of this new type of modulation system, but all these variants can be divided into definite categories according to: 1) the method used for transmitting the number (n^0) of the channel, 2) the method allowing to take into account the sign of the modulating signal. Let us assume that the voice signal $\xi(t)$ is a stationary random process with probability density $w(x)$, with zero mean value and with dispersion σ_{ξ}^2 . Let us analyze the systems where the information interval is modulated by the absolute value $h|\xi(t)|$ of the signal in a given channel, and where the sign of the signal is coded by an additional pulse. If t_{γ} is the random duration of the information interval of the γ -th channel, the probability density of t_{γ} is:

$$W(x) = \frac{2}{h} w\left(\frac{x}{h}\right), \quad x > 0 \quad (1)$$

where h is the proportionality coefficient (which will be assumed equal to one). The mean value and the dispersion of t_{γ} are respectively:

$$m_1 \{t_{\gamma}\} = \frac{2}{h} \int_0^{\infty} x w\left(\frac{x}{h}\right) dx = h m_1 \{|\xi(t)|\}, \quad (2)$$

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and

$$M_2 \{t_v\} = \frac{2}{h} \int_0^{\infty} x^2 w\left(\frac{x}{h}\right) dx - h^2 m_1^2 \left\{ \left\{ \xi(t) \right\} \right\}. \quad (3)$$

In the case of IPTM where information intervals are modulated by the sum of the instantaneous values of the signal and by its envelope $E(t)$, the mean value of t_v is:

$$m_1 \{t_v\} = m_1 \left\{ \left\{ \xi(t) \right\} \right\} + m_1 \{E(t)\}. \quad (4)$$

and the dispersion is:

$$M_2 \{t_v\} = M_2 \left\{ \left\{ \xi(t) \right\} \right\} + M_2 \{E(t)\}. \quad (5)$$

To compare the efficiency of several variants of the system using IPTM, the gain procured by any one of these variants (as regards the number of channels and the frequency-band) in respect of the usual pulse-phase modulation systems is to be calculated. In the usual N -channel pulse-phase modulation, interval T_0 is the sum of $N + 1$ channel-intervals (account taken of the synchronization channel). The duration of one channel-interval is the sum of pulse τ , of the protective time 3τ and of the duration of the information interval $2\alpha_1\sigma$. The magnitude

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of the peak factor α_1 is derived from the condition that the absolute values do not exceed (with a given probability p_1) $\alpha_1 \sigma$. Thus:

$$T_0 = (N + 1) (\frac{1}{4} \tau + 2 \alpha_1 \sigma). \quad (7)$$

Let us now analyze the time T_1 occupied in one period by N_1 channels of the IPTM system [Abstracter's note: Subscript 1 stands for any one of the compared variants of the system.]. If $B_1 \tau$ is the duration of the code combination of pulses per channel, T_1 is the sum of the time $(B_1 S_1 + 2) \tau$ occupied by code combinations and marker pulse, and of the total information time equal to the sum of n_1 independent, similarly distributed, random magnitudes. S_1 is here equal to the number n_1 of active channels in the case of a special coding of the number (n^0) of the channel, and to the total number N_1 of channels in the case of a simple reading of channels. If the number of active channels is, with a probability near one, not inferior to ten, the total information time can be considered as distributed according to the normal law with the mean and the dispersion respectively equal to $n_1 m_1^{(1)} \{t_v\}$ and $n_1 M_2^{(1)} \{t_v\}$. Therefore, T_1 is a fortuitous magnitude whose parameters are:

$$m_1 \{T_1\} = (B_1 S_1 + 2) \tau + n_1 m_1^{(1)} \{t_v\}, \quad M_2 \{T_1\} = M_2^{(1)} \{t_v\} n_1. \quad (8)$$

T_1 is limited below by magnitude c (minimum duration of all code combinations and

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of marker pulse in one period and must not exceed, with probability p_2 near one, the duration of period T_0 , this to avoid distortions. Taking (8) into account, we obtain:

$$F\left\{\frac{T_0 - (B_i S_i + 2) - n_i m_1^{(i)}\{t_v\}}{\sqrt{M_2^{(i)}\{t_v\} n_i}}\right\} = F\left\{\frac{c - (B_i S_i + 2) - n_i m_1^{(i)}\{t_v\}}{\sqrt{M_2^{(i)}\{t_v\} n_i}}\right\} = p_2. \quad (9)$$

But it is possible to state that

$$F\left\{\frac{x_2}{\sqrt{M_2^{(i)}\{t_v\} n_i}}\right\} = p_2 \quad (10)$$

where

$$x_2 = \frac{T_0 - (B_i S_i + 2) - n_i m_1^{(i)}\{t_v\}}{\sqrt{M_2^{(i)}\{t_v\} n_i}}. \quad (11)$$

Equation (10) allows to determine x_2 (for a given probability $1 - p_2$ of the system overload). Using the expression:

$$x_1 = n_i m_1^{(i)}\{t_v\} + x_2 \sqrt{n_i M_2^{(i)}\{t_v\}}. \quad (12)$$

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we find:

$$T_0 = (B_1 S_1 + 2) \tau + 6A_1. \quad (13)$$

Substituting into (13) the value of τ extracted from (7), we find the final formula for the possible number of channels N_1 , when (the noiseimmunity remaining unaltered) one of the variants of IPTM is used instead of pulse-phase modulation: n_1 being determined as a function of N_1 with the aid of the "activity curve" (activity coefficient k versus N). Equation (14) allows to find function $N_1 = N_1(N)$ at fixed values of T_0 and τ , and at given values of p_1 and p_2 . If, with IPTM, the number of channels is left equal to N , the time occupied by these N channels will be inferior to T_0 . It will be possible, therefore, to increase the pulse duration up to:

$$\tau_1(N) = \frac{T_0 - A_1 \tau}{B_1 S + 2} \quad (15)$$

The narrowing of the required frequency band, allowed by the passage from pulse-phase modulation to IPTM, will then be characterized by the relation:

$$\Delta_1 = \frac{\tau_1}{\tau} \quad (16)$$

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At the end of the article, the authors, using the above set of formulae, compare the efficiency of the different variants (i) of the IPTM system. They find that the least efficiency corresponds to the coding of the number (n^0) of channels by a uniform binary code. With a non-uniform binary code, the minimum efficiency (1.75-times increase of the number of channels) is yielded by the system with the additional, sign indicating, signal, and the maximum efficiency (1.91-times increase of the number of channels) is yielded by the transmission of the sum (signal + its envelope). The greatest efficiency (4.15-times increase of the number of channels) is obtained with the simple reading of channels and the transmission of the sum (signal + its envelope); this method ensures also the maximum narrowing of the band for the same number of channels. There are 5 figures, 2 tables and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The two references to English-language publications read as follows: Holbrook, Dixon. "Load Rating Theory for Multichannel Amplifiers". BSTY, v. 18, 624, 1939. US-Patent, cl. 179-15. no. 2724017, 15-11-55.

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AUTHORS: Levin, B. R. and Rozanov, V.S.

TITLE: Determining the number of channels in multichannel system using spaced pulse-time modulation

PERIODICAL: Elektrosvyaz', no. 6, 1961, 10 - 14

TEXT: In many multichannel communication systems the statistical characteristics of the source of communications are not taken into account when choosing the modulation method. With time division of channels, one of the methods of signal transmission allowing to make use of the statistical characteristics of the source is the spaced pulse-time modulation. The theoretical study of efficiency of this modulation method was already described in a previous article by G. A. Levin, B. R. Levin, V. I. Aysenberg and V. S. Rozanov [Ref. 1: Povysheniye effektivnosti mnogokanal'nykh sistem s vremennym razdeleniyem kanalov (increasing the efficiency of multichannel systems with time division of channels) Elektrosvyaz', 1960, No. 5] where a way was also shown for determining the possible number of channels. In the present article, the authors give a simpler and mathematically more accurate method for determining this number. The general case of

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an N-channel system with time division of channels is considered. It is assumed that $\xi_j(t)$ is the random process describing the modulation law in an individual channel. Account is taken of the channel activity by multiplying $\xi_j(t)$ by the random magnitude η_j which becomes unity with probability p (active channel), and zero with probability q (inactive channel). The modulation function for the N-channel system can then be written as:

$$\zeta(t, N) = \sum_{j=1}^N \zeta_j(t) = \sum_{j=1}^N f[\xi_j(t)] \eta_j, \quad (1)$$

where f is a functional transformation given in the above-mentioned article. When the absolute magnitude of the signal is transmitted (with an additional pulse for the sign coding), $f(\xi) = |\xi|$; in the case of the summation of the instantaneous signal values and their envelope $f[\xi_j(t)] = \xi_j(t) + E(t)$, where $E(t) = \sqrt{\xi^2(t) + \eta^2(t)}$ and where $\eta(t)$ is a process conjugated with $\xi(t)$ according to Guilbert. It is assumed that the communication sources are independent, and that only one-dimensional distribution functions $w_\xi(x)$ of processes $\xi_j(t)$ are used. It is also assumed that the activity and the distribution function of processes $\xi_j(t)$ do not depend on time and are the same for all channels. The integrated distribution func-

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tion of the component $\zeta_j(t)$ of the modulating function is

$$P\{\zeta_j < x\} = \begin{cases} pF_1(x) + q, & x > 0 \\ pF_1(x), & x < 0 \end{cases} \quad (2)$$

where

$$F_1(x) = \int_{-\infty}^x w_1(x) dx \quad (3)$$

and where $w_1(x)$ is the probability density of $f(\xi_j)$. The probability density of the random function $\zeta_j(t)$ is

$$w(x) = pw_1(x) + q\delta(x) \quad (4)$$

Expressing by $\theta_1(w)$ and $\vartheta_1(w)$ the characteristic functions of $f[\xi_j(t)]$ normal and $\zeta_j(t)$, the authors find:

$$\vartheta_1(w) = p\theta_1(w) + q \quad (5)$$

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The sources being independent, the characteristic function $\theta(w)$ of the modulating function $\zeta(t, N)$ is:

$$\theta(w) = [\theta_1(w)]^N = [p\theta_1(w) + q]^N. \quad (6)$$

Expressing the moment m_k of a random magnitude by

$$m_k = (-i)^k \theta^{(k)}(0);$$

the mean and the dispersion of the modulating function will be given by

$$m_1\{\zeta(t, N)\} = Npa \quad (7)$$

and

$$M_2\{\zeta(t, N)\} = Np(\sigma^2 + qa^2), \quad (8)$$

where a and σ^2 are the mean and the dispersion of the random magnitude $f[\xi_j(t)]$. When N is large, the $\zeta(t, N)$ distribution can be considered as normal with parameters determined by (7) and (8). The total time T occupied in one interval by the multichannel signal consists of the time occupied by code-combinations

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for the ordinary coding of the number of the channel, and

$$\alpha_2 \sqrt{Np(\sigma^2 + qa^2)} = T_0 - 2\tau - (B\tau + a) Np \quad (15)$$

when a binary code is used. In these expressions:

$$m_1 \{T\} = 2(N + 1)\tau + aNp, M_2 \{T\} = Np(\sigma^2 + qa^2), t_0 = 2(N + 1)\tau, \quad (10)$$

for ordinary coding, and

$$m_1 \{T\} = 2\tau + (a + B\tau)Np, M_2 \{T\} = Np(\sigma^2 + qa^2), t_0 = 2\tau \quad (11)$$

when a binary code is used, $B\tau$ being the duration of the code-combination of pulses per channel, and 2τ the total duration of the pulse and of the subsequent quiescent interval. For a determined "overload probability", α_2 can be derived from Equation (12); the solution of equation (14) or (15) permits then to determine the number of channels in the multichannel system using spaced pulse time modulation. At the end of the article, the authors apply the obtained formulae to a practical example, i. e., to the determination of the number of channels, in the

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case of either the normal or the Laplacian distribution, when the channel activity $p = 0.25$. This numerical example shows that the Laplacian distribution of the initial signal is more favorable than the normal one. There are 1 table and 3 Soviet-bloc references.

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Increasing the pulse duration of particle beams from a 680
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D.L.; POLFEROV, E.A.; ROZANOV, Ye.I.; SAVENOV, A.L.; SAFONOV, A.N.

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L 4117-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) DM

ACCESSION NR: AP5023773

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621.384.611

AUTHOR: Danilov, V. I.; Yenchovich, I. B.; Zamolodchikov, B. I.; Polferov, E. A.;
Rozanov, Ye. I.; Smirnov, V. I.; Testov, V. G.

TITLE: The increase in pulse duration of the 680 MEV OIYaI synchrocyclotron particle beam

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 289-292

TOPIC TAGS: synchrocyclotron, ion acceleration, ion accelerator, MEV accelerator

ABSTRACT: In synchrocyclotrons ions are accelerated in bunches, the shape and dimensions of which are determined by radial-phase and betatron oscillations. The present authors describe a method for pulse extension which was tested on the OIYaI synchrocyclotron and yielded results summarized in Fig. 1 of the Enclosure. The method is based on the analysis of the approximate expressions for pulse duration.

$$T = \int_{r_M}^{r_N} \frac{dr}{r_s(t) + Q_{s, M}(t)}$$

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where the speed of equilibrium orbit widening is given by

$$\dot{r}_s = \frac{r_s}{1-n} \cdot \frac{1}{E_s \beta_s^2} \cdot \frac{\omega_s}{2\pi} e_0 V_0 \sin \varphi_s =$$

$$= \frac{r_s}{1-n} \cdot \frac{1}{K_s \beta_s^2 \omega_s} \cdot \frac{d\omega}{dt}$$

$\int_{B.M.}(t)$ is velocity of displacement of the equilibrium orbit at the φ_n azimuth caused by the excitation of the first harmonics of the magnetic field;

$$n = -\frac{r}{H} \cdot \frac{\partial H}{\partial r}; K = 1 + \frac{n}{1-n} \cdot \frac{1}{\beta^2}; \beta = \frac{v}{c};$$

v, ω, E are velocity, rotational frequency, and total energy of the particle, respectively;
 eV_0 - maximum possible energy increment per turn; subscripts s characterize equilibrium values;

$$\delta r = q\phi + q_0 \text{ with } q_{s,n}=0;$$

$$\delta r = q\phi + 2q_0 \text{ with } \dot{r}_s=0$$

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and β_c , β_c is the maximum amplitude of radial betatron and radial-phase oscillations respectively. It is shown that the length of the pulse may be extended by increasing the interval of radial oscillation amplitudes and by decreasing the beam velocity along the radius (this can be achieved by increasing, in time, the forced radial oscillations for $\beta_s = 0$). A brief description of the design and operation of the necessary circuits is also given. Orig. art. has: 9 formulas and 5 figures.

ASSOCIATION: None

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